PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#2

In re application of

Docket No: Q85611

Masakazu SATO. et al.

National Stage Application of PCT/JP03/10159
-filed August 8, 2003

Confirmation No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Filed: January 21, 2005

Examiner: Not Yet Assigned

For: METHOD FOR SELECTIVE

PREPARATION OF ARYL 5-THIO-β-D-

ALDOHEXOPYRANOSIDES

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith, except for the following: U.S. patents and/or U.S. patent publications; and co-pending non-provisional U.S. applications filed after June 30, 2003.

National Stage Application of PCT/JP03/10159
-filed August 8, 2003

Q85611

WO 03/000712 is cited in the first full paragraph of page 2 of the subject application. EP 1 405 859 is a corresponding application and is submitted as a concise statement of relevance of WO 03/000712.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC

Telephone: (202) 293-7060

Facsimile: (202) 293-7860

WASHINGTON OFFICE 23373
CUSTOMER NUMBER

Date: January 21, 2005

Susan J. Mack

Registration No. 30,951

DT12 Rec'd PCT/PTO 2 1 JAN 2005

MODIFIED DTO/CD/09 A & D (06 03)

| | | | | | MODIFIED F10/38/08 A & B (00-03) |
|---|---|---------------------|--------------------|------------------------|--|
| | | | | - nip | lete if Kho01/521809 |
| Substitute for Form 1449 A & B/PTO | | | | | National Stage Application of PCT/JP03/10159 |
| INFORMATION DISCLOSURE | | SURE | Application Number | -filed August 8, 2003 | |
| STATEMENT BY APPLICANT | | Confirmation Number | Not Yet Assigned | | |
| O I I I I SAIVE SAI I I SAI SAI OLIA VA | | | | Filing Date | January 21, 2005 |
| (use as many sheets as necessary) | | | | First Named Inventor | Masakazu SATO |
| | | | , | Art Unit | Not Yet Assigned |
| | | | | Examiner Name | Not Yet Assigned |
| Sheet | 1 | of | 1 | Attorney Docket Number | Q85611 |

| | U.S. PATENT DOCUMENTS | | | | | | | | |
|-----------------------|--------------------------|-----------------|---|--------------------------------|---|--|--|--|--|
| | | Document Nun | nber | | | | | | |
| Examiner Initials* | Cite No. ¹ | Number | Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | | | | |
| | | US 2004/0063646 | Al | 04-01-2004 | Fujikura, et al. | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|---|------------|-----------------------------|--------------------------|------------|---------------------------------|----------|
| Examiner | Cite Foreign Patent Document Publication Date | | Name of Patentee or | Translation ⁶ | | | |
| Initials* | Code ³ Number (if known) | MM-DD-YYYY | Applicant of Cited Document | Translation | | | |
| | | EP | 1 405 859 | Al | 04-07-2004 | Kissei Pharmaceutical Co., Ltd. | |
| | | WO | 03/000712 | Al | 01-03-2003 | Kissei Pharmaceutical Co., Ltd. | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | <u> </u> |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | - | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | 1 | | | |

| | | NON PATENT LITERATURE DOCUMENTS | |
|-----------------------|--------------|--|--------------------------|
| Examiner Initials* | Cite No.1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published. | Translation ⁶ |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | Γ | |
|--------------------|-----------------|----------|
| Examiner Signature | Date Considered | <u> </u> |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to indicate here if English language Translation is attached.

DT12 Rec'd PCT/PTO 2 1 JAN 2005

MODIFIED PTO/SB/08 A & B (06-03)

| Substitute fo | or Form | 1449 A | & | B/PTO |
|---------------|---------|--------|---|-------|
| | | | | |

Sheet

REFERENCES CITED IN THE INTERNATIONAL SEARCH REPORT

(use as many sheets as necessary)

of

| - Ap | plete if Andun 121001 | | |
|------------------------|-------------------------------|--|--|
| | National Stage Application of | | |
| | PCT/JP03/10159 | | |
| Application Number | -filed August 8, 2003 | | |
| Confirmation Number | Not Yet Assigned | | |
| Filing Date | January 21, 2005 | | |
| First Named Inventor | Masakazu SATO | | |
| Art Unit | Not Yet Assigned | | |
| Examiner Name | Not Yet Assigned | | |
| Attorney Docket Number | Q85611 | | |

| | | | U.S. I | PATENT DOCUME | ENTS |
|-----------------------|-------------|----------|-----------------------------------|------------------|---|
| E | Cite | Document | Number | Publication Date | |
| Examiner Initials* | No.1 | Number | Kind Code ² (if known) | MM-DD-YYYY | Name of Patentee or Applicant of Cited Document |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | F | OREIGN PA | TENT DOCUME | ENTS | |
|-----------|--------|------------------------------|---------------------------------------|-----------------------------------|---------------------|---------------------------------|-------------|
| Examiner | Cite | Foreign Patent Document | | Publication Date | Name of Patentee or | Translation ⁶ | |
| Initials* | No.1 | Country Code ³ | Number ⁴ | Kind Code ⁵ (if known) | MM-DD-YYYY | Applicant of Cited Document | Translation |
| | | WO | 01/16147 | Al | 03-08-2001 | Kissei Pharmaceutical Co., Ltd. | |
| | | EP | 1213296 | Al | 06-12-2002 | Kissei Pharmaceutical Co., Ltd. | |
| | | WO | 01/68660 | Al | 09-20-2001 | Kissei Pharmaceutical Co., Ltd. | |
| | | EP | 1270584 | Al | 01-02-2003 | Kissei Pharmaceutical Co., Ltd. | |
| | | WO | 01/74834 | Al | 10-11-2001 | Bristol Myers Squibb Co | |
| | | WO | 01/74835 | Al | 10-11-2001 | Bristol Myers Squibb Co | |
| | | WO | 02/36602 | Al | 05-10-2002 | Ajinomoto Co., Inc. | |
| | | EP | 1338603 | Al | 08-27-2003 | Ajinomoto Co., Inc. | |
| | | WO | 02/053573 | Al | 07-11-2002 | Kissei Pharmaceutical Co., Ltd. | |
| | | JP | 10-237089 | A | 09-08-1998 | Tanabe Seiyaku Co., Ltd. | |
| | | EP | 850948 | Al | 07-01-1998 | Tanabe Seiyaku Co., Ltd. | |
| | | | · · · · · · · · · · · · · · · · · · · | | | | · |
| | 101.74 | | *** | | | | |

| Examiner Initials* | Cite No. ¹ | NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published. | Translation ⁶ |
|-----------------------|--------------------------|---|--------------------------|
| | | BOZO, et al. "Synthesis of 4-cyanophenyl and 4-nitrophenyl 1,5-dithio-L- and -D-arabinopyranosides possessing antithrombotic activity"., Carbohydrate Research, 1998, 311, pages 191-202 | |
| | | K.D. RANDELL, et al. "Synthesis and glycosides inhibitory activity of 5-thioglucopyranosylamines. Molecular modeling of complexes with glucoamilase., Carbohydrate Research, 1999, 321, pages 143-156 | |
| | | H. YUASA, et al. "Relative Nucleophilicity of the Two Sulfur Atoms in 1,5-Dithioglucopyranoside., Angew. Chem. Int. Ed. Engl., 1997, 36(8), pages 868-870 | |
| | | | |
| | | | |

| Examiner Signature | Date Considered | |
|--------------------|-----------------|--|

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to indicate here if English language Translation is attached.